



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Alain Chiodini  
SERIAL NO.: 09/932,734  
FILING DATE: 8/16/2001  
TITLE: METHOD AND APPARATUS USING PSEUDO-INVERSES OF LINEAR  
TRANSFORMATIONS IN MULTI-CARRIER MODULATION RECEIVERS  
AND TRANSCEIVERS  
EXAMINER: Not Assigned  
ART UNIT: 2664

**Certificate of Mailing**

I hereby certify that this paper is being deposited with the United States Postal Service as First Class

Mail in an envelope addressed to: MAIL STOP: Office of Initial Patent Examination, P.O. Box

1450 Alexandria, VA 22313-1450, on the date printed below:

Date: 10-13-04

Signature: *Alain Chiodini*

(Type name of person signing here)

MAIL STOP: Office of Initial Patent Examination  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PATENT PRACTITIONERS TO BE MADE OF RECORD**

**Pursuant to 37 C.F.R. § 1.32(c)(3)**

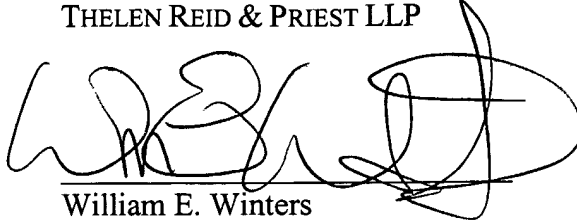
Please recognize the following ten patent practitioners in the attached Declaration and Power of Attorney as being of record in the application or patent to which the power of attorney is directed:

David B. Ritchie, Reg. No. 31,562  
Marc S. Hanish, Reg. No. 42,626  
John P. Schaub, Reg. No. 42,125  
Thierry K. Lo, Reg. No. 49,097  
William E. Winters, Reg. 42,232

Robert E. Krebs, Reg. No. 25,885  
Khaled Shami, Reg. No. 38,745  
Steven J. Robbins, Reg. No. 40,299  
Gregory T. Kavounas, Reg. No. 37,862  
Hal J. Bohner, Reg. No. 27,856

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

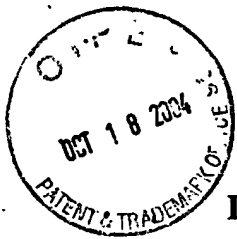
Respectfully submitted,  
THELEN REID & PRIEST LLP

A large, stylized handwritten signature in black ink, appearing to read 'W. E. Winters', is written over a horizontal line.

William E. Winters  
Reg. No. 42,232

Dated: OCT 13, 2004

THELEN REID & PRIEST LLP  
P.O. Box 640640  
San Jose, CA 95164-0640  
Telephone: (408) 292-5800  
Fax: (408) 287-8040



Sheet No. 034421-165  
(formerly NBAN0009)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Alain Chiodini  
SERIAL NO.: 09/932,734  
FILING DATE: August 16, 2001  
TITLE: METHOD AND APPARATUS USING PSEUDO-INVERSES OF  
LINEAR TRANSFORMATIONS IN MULTI-CARRIER  
MODULATION RECEIVERS AND TRANSCEIVERS  
EXAMINER: [not yet assigned]  
ART UNIT: 2661

---

**CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as First Class  
Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the date  
printed below:

Date: 6/13/03

Name: Monica Pizarro  
Monica Pizarro

---

COMMISSIONER FOR PATENTS  
P. O. BOX 1450  
ALEXANDRIA, VA 22313-1450

**REVOCATION OF ATTORNEY AND POWER OF ATTORNEY**

The undersigned, having authority to act on behalf of Proxim, Inc., assignee of all  
right, title, and interest in the above-identified patent application, hereby revokes all  
powers of attorney previously given and hereby appoints, Robert E. Krebs, Registration  
No. 25,885; David B. Ritchie, Registration No. 31,562; Marc S. Hanish, Registration No.  
42,626; John P. Schaub, Registration No. 42,125; Adrienne Yeung, Registration No.  
44,000; Thierry K. Lo, Registration No. 49,097; Steven J. Robbins, Registration No.  
40,299; William E. Winters, Registration No. 42,232; Davis J. Gilmer, Registration No.

44,711; and W. Samuel Niece Registration No. 47,824; Masako Ando, (37 C.F.R. §10.9 (b)); and John Klaas Uilkema, Registration No. 20,282; Becky L. Troutman, Registration No. 36,703; Hal J. Bohner, Registration No. 27,856; as its attorneys to act on applicant's behalf before the United States Patent and Trademark Office for the above-identified application and to transact all business in the Patent and Trademark Office in connection therewith.

Please mail all correspondence to Robert E. Krebs at the following address:

THELEN REID & PRIEST LLP  
P.O. BOX 640640  
SAN JOSE, CA 95164-0640

and direct all telephone calls to Robert E. Krebs at (408) 292-5800.

Respectfully submitted,  
PROXIM, INC.

Dated: 6/9/03

Keith E. Glover  
Keith E. Glover  
Chief Financial Officer

BEST AVAILABLE COPY  
ASSIGNMENT

WHEREAS, Proxim Wireless Networks, Inc., having a place of business at 935 Stewart Drive, Sunnyvale, CA 94085, is the present assignee of inventions as listed on Exhibit A attached to this Assignment; and

WHEREAS, Proxim Corporation, a Delaware corporation, having a place of business located at, 935 Stewart Drive, Sunnyvale, CA 94085, is desirous of acquiring the exclusive right, title and interest in and to said invention and in and to the Letters Patent to be granted and issued therefor in the United States of America and its territories and possessions, and all countries foreign thereto;

NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, Proxim Wireless Networks Inc., does sell, assign, transfer and set over to Proxim Corporation., its successors and assigns, the full and exclusive right, title and interest in and to said invention, and in and to any and all Letters Patent to be granted and issued therefor, not only for, to and in the United States of America, its territories and possessions, but also for, to and in all other countries including all priority rights under the International Convention; and we hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said Proxim Corporation, its successors and assigns, in accordance with this Assignment.

WITNESS MY HAND at Sunnyvale, California, this 22nd day of September, 2003

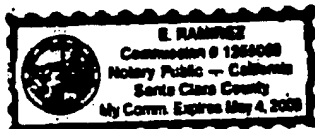
Keith Glover  
Keith Glover

STATE OF CALIFORNIA )  
COUNTY OF SANTA CLARA ) ss.

On this 22 day of SEPTEMBER, 2003 before me, E. RAMIREZ, a Notary Public, personally appeared KEITH GLOVER, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person/s whose name/s are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacities, and that by his/her/their signature/s on the instrument the person/s or the entity upon behalf of which the person/s acted, executed the instrument.

WITNESS my hand and official seal.

E. Ramirez  
NOTARY PUBLIC



## Exhibit A

### Patents

#### United States Patents

DESCRIPTION	PATENT NUMBER	ISSUE DATE
Radio communication system using spread spectrum techniques	5,077,753	12/31/91
Medium access protocol for wireless LANs	5,231,634 ✓	07/27/93
Hydroacoustic communications system robust to multipath	5,412,620	05/02/95
Digital communications equipment using differential quaternary frequency shift keying	5,412,687 ✓	05/02/95
High-Data-Rate wireless local-area network	5,809,060	09/15/98
Method and apparatus for optimizing a medium access control protocol	5,844,900 ✓	12/01/98
Method and apparatus for synchronized communication over wireless backbone architecture	5,875,179 ✓	02/23/99
Connectorized antenna for wireless LAN PCMCIA card radios within increased data rates and robustness	5,913,174 ✓	06/15/99
Providing roaming capability for mobile computers in a standard network	6,006,090 ✓	12/21/99
Wireless communications system for transmitting and receiving data with increased data rates and robustness	6,067,313	5/23/00
High-Data-Rate wireless local-area network	6,075,812	06/13/00
Cycle-Skipping DRAM For Power Saving	6,178,479 ✓	01/23/01
Method and apparatus for managing power in a frequency hopping medium access control protocol	6,292,508 ✓	09/18/01
Low-Power Memory System With Incorporated Vector Processing	6,311,280 ✓	10/30/01
Frequency hopping medium access control protocol for a communication system having distributed synchronization	6,466,608 ✓	10/15/02
High-Data-Rate wireless local-area network	6,473,449	10/29/02
Local area network wireless device system	D375,297 ✓	11/05/96

**Exhibit A**

**Patents (Continued)**

**United States Patent Applications**

<b>DESCRIPTION</b>	<b>APPLICATION NUMBER</b>	<b>FILING DATE</b>
Flexible wireless LAN architecture based on wireless communication server	09/457,624 ✓	12/08/99
Forced-Air cooling of a transceiver unit	10/231,523 ✓	08/29/02
Prioritized Scheme for CSMA/CA	09/706,454 ✓	11/03/00
Multibanked Embedded DRAM	09/710,365 ✓	11/08/00
Coarse Frequency Offset Estimation	09/802,609 ✓	03/08/01
OFDM Data Demodulators Synchronization	09/803,081 ✓	03/08/01
Fine-Frequency Offset Estimation	09/802,586 ✓	03/08/01
Timing Misalignment Estimation	09/802,588 ✓	03/08/01
Method and Apparatus Using Pseudo-Inverses of Linear Transformations In Multi-Carrier Modulation Receivers And Transceivers	09/932,734 ✓	08/16/01
Multi-Channel-Bandwidth Frequency Hopping System	09/828,267 ✓	04/06/01
Asymmetric Data Traffic Throughput in CSMA/CA Networks	09/828,279 ✓	04/06/01

Please type a plus sign (+) inside this box →

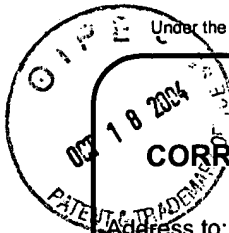


PTO/SB/122 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



**CHANGE OF  
CORRESPONDENCE ADDRESS  
Application**

Address to:

Assistant Commissioner for Patents  
Washington, D.C. 20231

Application Number	09/932,734
Filing Date	8/16/2001
First Named Inventor	Alain Chiodini
Group Art Unit	2664
Examiner Name	Not assigned
Attorney Docket Number	034421-000165

Please change the Correspondence Address for the above-identified application to:

☐

Customer Number

Type Customer Number here

Place Customer  
Number Bar Code  
Label here

OR

<input checked="" type="checkbox"/> Firm or Individual Name	ROBERT E. KREBS				
Address	THELEN REID & PRIEST LLP				
Address	P.O. BOX 640640				
City	SAN JOSE	State	CA	ZIP	95164-0640
Country	USA				
Telephone	408-292-5800	Fax	408-287-8040		

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

I am the :

- ☐ Applicant.
- ☐ Assignee of record of the entire interest.  
Certificate under 37 CFR 3.73(b) is enclosed.
- ☒ Attorney or agent of record.
- ☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_

Typed or Printed Name William E. Winters, REG. NO. 42,232

Signature

October 13, 2004

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SV #183372 v1